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LenkerDecRule132

APPENDIX A

Claim 147. A method for treating a mammalian patient who has a defect in the wall of a blood vessel that has a true lumen and a wall, said method comprising the steps of:

A. providing a system that comprises; i) a delivery catheter; ii) an intravascular member that assumes a collapsed configuration when positioned within the delivery catheter and an expanded configuration when advanced out of the delivery catheter and iii) an advancer for advancing the intravascular member out of the delivery catheter,

said intravascular member being connected to the advancer by way of a releasable connection, said releasable connection being volitionally releasable without requiring rotation of the advancer;

said intravascular member being in the form of an elongate strand when in its collapsed configuration, and

said elongate strand assuming a generally tubular shape having a hollow flow channel therethrough when the intravascular member is in its expanded configuration;

B. positioning the delivery catheter within the true lumen of the blood vessel near the defect;

C. using the advancer apparatus to advance the intravascular member out of the delivery catheter and causing the intravascular member to transition to its expanded configuration within the true lumen of the blood vessel, adjacent to the defect, such that, i) the intravascular member engages the wall of the blood vessel so as to be held in substantially fixed position within the true lumen of the blood vessel, ii) no substantial portion of the intravascular member extends into the defect and iii) blood flowing through the true lumen of the blood vessel lumen passes through the flow channel of the intravascular member; and,

D. releasing the releasable connection and removing the delivery catheter, thereby leaving the expanded intravascular member implanted within the true lumen of the blood vessel adjacent to the defect

E. providing an embolus member sized to fit within the vessel wall defect; and,

F. positioning the embolus member within the vessel wall defect such that the intravascular member retains the embolus member within the vessel wall defect.

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Claim 148 A method according to Claim 147 wherein the performance of Steps B and C comprises:

placing a first catheter at a first position within the patient's vasculature;

advancing a second catheter through the lumen of the first catheter and to a second position within the patient's vasculature;

advancing the delivery catheter through the lumen of the second catheter to a third position within the true lumen of the blood vessel, adjacent to the vessel wall defect; and

while the first, second and third catheters are in their respective first, second and third positions, advancing the intravascular member out of the lumen of the third catheter such that the intravascular member assumes its expanded configuration within the true lumen of the blood vessel.

Claim 149 A method according to Claim 147 further comprising the steps of:

E. providing an embolus member sized to fit within the vessel wall defect; and,

F. positioning the embolus member within the vessel wall defect such that the intravascular member retains the embolus member within the vessel wall defect.

Claim 150 A method according to Claim 149 147 wherein Step F is performed after Step C.

Claim 151 A method according to Claim 149 147 wherein Step F is performed before Step C.

Claim 152 A method according to Claim 149 147 wherein Step F comprises:

- i positioning a delivery catheter having a distal end within the intravascular member after completion of Step C;
- ii causing the distal end of the delivery catheter to advance through a portion of the intravascular member and into the vessel wall defect;

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- iii delivering the embolus member out of the distal end of the delivery catheter and into the vessel wall defect; and,
- iv removing the delivery catheter, leaving the embolus member within the vessel wall defect with the intravascular member preventing the embolus member from escaping from the vessel wall defect into the lumen of the blood vessel.

Claim 153 A method according to Claim 147 wherein the vessel wall defect is an aneurysm and wherein Step F comprises positioning the embolus member within the interior of the aneurysm and outside of the true lumen of the blood vessel.

Claim 154 A method according to Claim 147 wherein the aneurysm is a wide mouthed aneurysm and wherein Step F comprises delivering the embolus member through the mouth of the aneurysm and into the aneurysm sac.

Claim 155 A method according to Claim 147 wherein at least a portion of the embolic member delivered in Step F is thrombogenic.

Claim 156 A system for treating an aneurysm or other defect in the wall of a blood vessel that has a wall and a true lumen through which blood normally flows, said system comprising:

an elongate, flexible delivery catheter having a lumen extending longitudinally therethrough and a distal end opening, said delivery catheter being advanceable in to the true lumen of a blood vessel;

an intravascular member that has a collapsed configuration wherein it is in the form of an elongate strand member that is positionable within the delivery catheter and an expanded configuration wherein it is the elongate strand member assumes a generally tubular shape that defines a hollow flow channel therethrough;

an advancer for advancing the intravascular member out of the delivery catheter, said intravascular member being connected to the advancer by way of a releasable connection, said releasable connection being volitionally releasable without requiring rotation of the advancer; and

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an embolic member that is implantable within the aneurysm or other defect in the wall of the blood vessel;

said advancer being useable to advance the intravascular member out of the distal end opening of the delivery catheter such that the intravascular member expands to its expanded configuration within the true lumen of the blood vessel in an orientation that is substantially coaxial with the advancer and such that blood flowing through the blood vessel lumen will flow through the flow channel of the intravascular member, while the intravascular member remains connected to the advancer apparatus by way of said releasable connection;

said releasable connection being thereafter volitionally severable such that the delivery catheter and advancer apparatus may be removed from the blood vessel lumen leaving the expanded intravascular member implanted in said blood vessel lumen

said embolic member being implantable within the aneurysm or other defect such that the intravascular member prevents the embolic member from escaping from the aneurysm or other defect and into the true lumen of the blood vessel.

Claim 157 (Cancelled)

Claim 158 A system according to Claim 157 wherein the elongate strand member forms [[a]] at least one helix when in said expanded configuration.

Claim 159 A system according to Claim 156 further comprising apparatus for releasing the releasable connection.

Claim 160 A system according to Claim 156 wherein the releasable connection comprises a ball and claw.

Claim 161 A system according to Claim 156 wherein the releasable connection is releasable by being cut and wherein the apparatus for releasing the releasable connection comprises apparatus for cutting the releasable connection.

Claim 162 (Previously Added) A system according to Claim 156 wherein the releasable connection is releasable in response to an electrical current and wherein the apparatus for releasing the releasable connection comprises apparatus for delivering electrical current.